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(56) Documents cited

GB 2068619A

GB 2057738A

GB 2042234A

GB 1596363

GB 1284898

EP 0005930A

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(54) A coin-operated amusement or gaming machine

(57) A coin-operated amusement or gaming machine having a video display unit (1) is described wherein means (2, 6) are provided for

producing an advertising video signal to cause an advertisement or a selected one of a plurality of different advertisements to be displayed on the screen of the display unit during the operation of the machine in idle periods when a game is not being played on the machine.

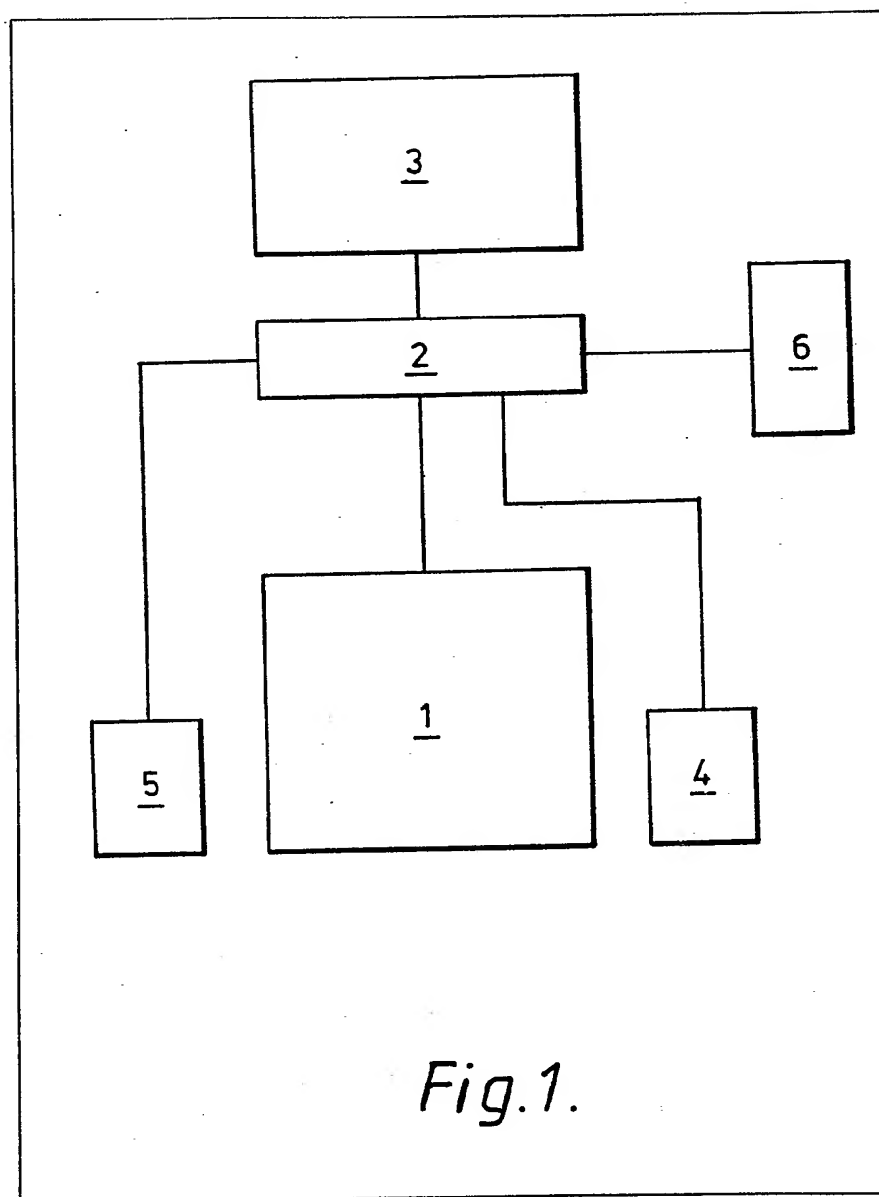
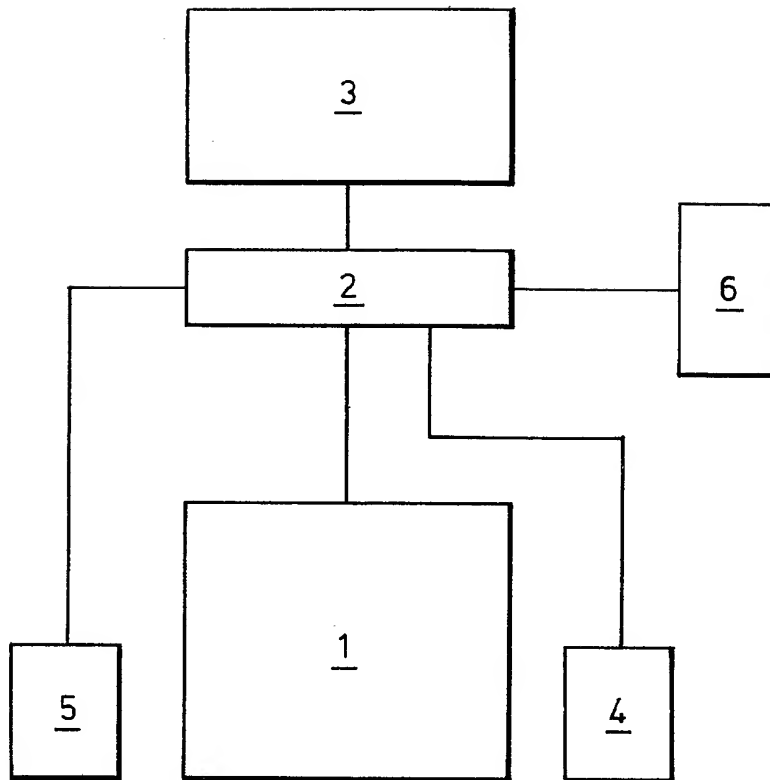
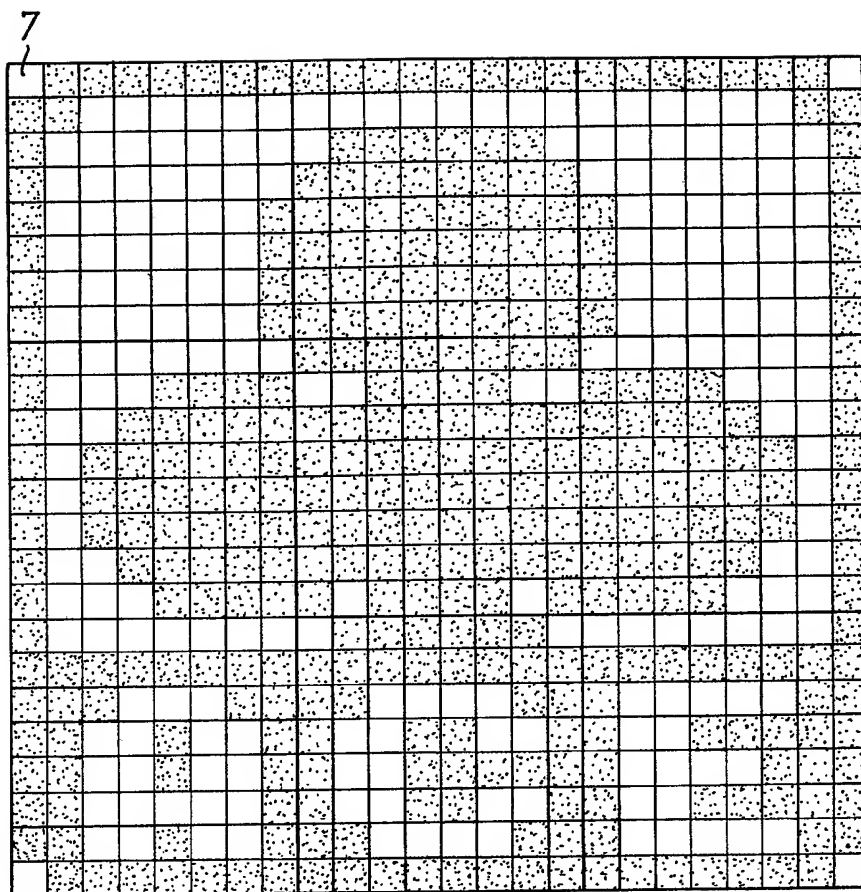


Fig.1.

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$1/2$ *Fig.1.*

2/2

*Fig. 2.*

## SPECIFICATION

**A coin-operated amusement or gaming machine**

This invention concerns improvements in or  
 5 relating to coin-operated amusement or gaming machines and in particular to such machines which include a video display screen.

According to the present invention, there is provided a coin-operated amusement or gaming  
 10 machine having a video display screen and means for displaying advertisements on the display screen.

In accordance with a particular embodiment of the invention, there is provided a coin-operated  
 15 amusement or gaming machine having a video display screen and means for producing an advertising video signal to cause an advertisement to be displayed on the display screen during the operation of the machine in idle periods when a  
 20 game is not being played on the machine.

Preferably, information for producing the advertising video signal is stored in a multiple element storage unit and conveniently the multiple element storage unit stores information  
 25 relating to a plurality of different advertisements to produce a plurality of different advertising video signals and the advertisement to be displayed is selected in accordance with predetermined rules. Alternatively, the information stored may be  
 30 changeable to allow different advertisements to be displayed on the display screen. Conveniently the multiple element storage unit is an electrically programmable read only memory which stores the information relating to the or each advertisement  
 35 in the form of a bit map.

It will be appreciated that coin-operated amusement and gaming machines are installed in prominent positions in places frequented by the public and the present invention enables the full  
 40 operating time of the machine to be usually employed, whilst providing attractive advertising which potentially will be seen both by people approaching the machine to play and by people passing the machine.

In order that the invention may be readily understood, an embodiment thereof will now be described, by way of example, with reference to the accompanying drawings, in which:

FIGURE 1 is a schematic block diagram of the main elements of an amusement or gaming  
 50 machine embodying the invention; and

FIGURE 2 illustrates part of a bit map stored in an advertising memory of the machine of Figure 1 showing the storage of a particular advertising  
 55 image to be displayed.

Referring to the drawing, a coin-operated video amusement or gaming machine comprises a video display unit 1 in the form of a cathode ray tube which is supplied with video and, if required, audio  
 60 signals under the control of a central processor 2, and a memory and programme unit 3. The video signals supplied to the video display in accordance with the rules of the game are modified by the action of a player on player controls 4, so that

65 action taken by the player interacts with the internally stored information of the machine to generate the resulting video display.

A coin mechanism 5 reacts to the insertion of a coin or coins of appropriate value to condition the machine for the playing of a game.

The machine also includes an advertising memory 6 in the form of a multiple element removable storage unit, for example an electrically programmable read only memory, which stores a bit map of the advertisements which are to be produced on the video display unit 1. A section of the bit map for a particular advertisement which may be displayed on the screen of the video display unit 1 is shown in Figure 2, the bit map section being represented schematically by a corresponding array of picture elements 7 each of which corresponds to a respective location of a memory 6. An "on" element of the picture array corresponding to a 1 bit at the corresponding stage location is indicated by a stippled square while an "off" picture element corresponding to an 0 bit at the corresponding storage location is indicated by an unstippled square.

Upon detection of an idle period of the machine, that is when a game is not being played on the machine, the central processor 2 addresses the part of the bit map stored in the advertising memory 6 containing the information relating to the advertisement chosen to be displayed and associated hardware circuitry causes that part of the bit map to be combined with the video signal controlling the video display to reproduce the chosen advertisement on the video display unit 1.

The colour of the advertisement produced on the video display unit may be controlled by control means, for example, appropriate software, and multiple colour images of any size may be produced on the video display unit.

Combination of the chosen part of the bit map with the video signal by the associated hardware circuitry is terminated upon operation of the coin mechanism whereupon the machine returns to a condition ready for the playing of a game.

The advertisement, which may be a message or  
 110 an image to be displayed during an idle period of the machine, may be changed by altering the contents of the bit map in the advertising memory or alternatively by storing a number of different advertisements in the advertising memory and selecting the particular portions of the bit map corresponding to the advertisements required by programming or by externally controlling the central processor.

Programing may provide for a plurality of advertisements to be displayed in a predetermined sequence during the idle periods of the machine and may provide for each advertisement to be displayed for a predetermined total time during each sequence.

## 125 CLAIMS

1. A coin-operated amusement or gaming machine having a video display screen and means for displaying advertisements on the screen.

2. A coin-operated amusement or gaming machine having a video display screen and means for producing an advertising video signal to cause an advertisement to be displayed on the display screen during the operation of the machine in idle periods when a game is not being played on the machine.
3. A machine according to claim 2, wherein information for producing the advertising video signal is stored in a multiple element storage unit.
4. A machine according to claim 3, wherein the multiple element storage unit stores information relating to a plurality of different advertisements to produce a plurality of different advertising video signals and the advertisement to be displayed is selected in accordance with predetermined rules.
5. A machine according to claim 3, wherein the information stored in the multiple element storage unit is changeable to allow different advertisements to be displayed on the display screen.
6. A machine according to claim 3, 4 or 5, wherein the multiple element storage unit is an electrically programmable read only memory which stores the information relating to the or each advertisement in the form of a bit map.
7. A machine according to claim 6, wherein means are provided for combining the information relating to the or an advertisement stored in a part of the bit map with a video signal to produce the advertising video signal for causing the or that advertisement to be displayed on the display screen.
8. A machine according to any one of claims 2 to 7, wherein the colour of the advertisement displayed on the display screen is controlled by control means.
9. A machine according to claim 8, wherein the advertisement displayed on the display screen is multi-coloured.
10. A coin-operated amusement or gaming machine substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.
11. Any novel feature or combination of features described herein.